SAMSUNG

SERIES 4 5
4003
5003

# LED TV
# user manual

Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

## Important Warranty Information Regarding Television Format Viewing

✎ See the warranty card for more information on warranty terms.

Wide screen format LED Displays (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature and the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark sidebars on non- expanded standard format television video and programming, should be limited to no more than 5% of the total television viewing per week. Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying stationary images that exceed the above guidelines can cause uneven aging of LED Displays that leave subtle, but permanent burned-in ghost images in the LED picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On LED models that offer picture sizing features, use these controls to view different formats as a full screen picture. Be careful in the selection and duration of television formats you use for viewing. Uneven LED aging as a result of format selection and use, as well as burned-in images, are not covered by your Samsung limited warranty.

• SAMSUNG ELECTRONICS NORTH AMERICAN LIMITED WARRANTY STATEMENT

Subject to the requirements, conditions, exclusions and limitations of the original Limited Warranty supplied with Samsung Electronics (SAMSUNG) products, and the requirements, conditions, exclusions and limitations contained herein, SAMSUNG will additionally provide Warranty Repair Service in the United States on SAMSUNG products purchased in Canada, and in Canada on SAMSUNG products purchased in the United States, for the warranty period originally specified, and to the Original Purchaser only.

The above described warranty repairs must be performed by a SAMSUNG Authorized Service Center. Along with this Statement, the Original Limited Warranty Statement and a dated Bill of Sale as Proof of Purchase must be presented to the Service Center. Transportation to and from the Service Center is the responsibility of the purchaser. Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product. Excluded, but not limited to, are any originally specified provisions for, in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables.

For the location of a SAMSUNG Authorized Service Center, please call toll-free:

— In the United States : 1-800-SAMSUNG (1-800-726-7864)

— In Canada : 1-800-SAMSUNG

## Still image warning

Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, panorama or 4:3 image format, stock or news bars at screen bottom etc.) on the screen. Constant displaying of still pictures can cause ghosting of LED screen, which will affect image quality. To reduce risk of this effect, please follow below recommendations:

- Avoid displaying the same TV channel for long periods.
- Always try to display any image on full screen, use TV set picture format menu for best possible match.
- Reduce brightness and contrast values to minimum required to achieve desired picture quality, exceeded values may speed up the burnout process.
- Frequently use all TV features designed to reduce image retention and screen burnout, refer to proper user manual section for details.

## Securing the Installation Space

Keep the required distances between the product and other objects (e.g. walls) to ensure proper ventilation.

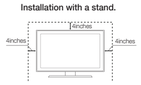
Failing to do so may result in fire or a problem with the product due to an increase in the internal temperature of the product.

✎ When using a stand or wall-mount, use parts provided by Samsung Electronics only.
- If you use parts provided by another manufacturer, it may result in a problem with the product or an injury due to the product falling.

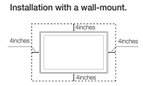
✎ The appearance may differ depending on the product.

✎ Be careful when you contact the TV because some parts can be somewhat hot.

Installation with a stand.




Installation with a wall-mount.




**Contact SAMSUNG WORLDWIDE**

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

| Country | CANADA | U.S.A |
|---|---|---|
| Address | Samsung Electronics Canada Inc., Customer Service 55 Standish Court Mississauga, Ontario L5R 4B2 Canada | Samsung Electronics America, Inc. 85 Challenger Road Ridgefield Park, NJ 07660 |
| Customer Care Center ☎ | 1-800-SAMSUNG (726-7864) | |
| Web Site | www.samsung.com/ca (English) www.samsung.com/ca_fr (French) | www.samsung.com/us |

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# Getting Started

## Accessories

- Remote Control (AA59-00666A) & Batteries (AAA x 2)
- Warranty Card / Safety Guide
- Owner's Instructions
- Power Cord

## Input Cables (Sold Separately)

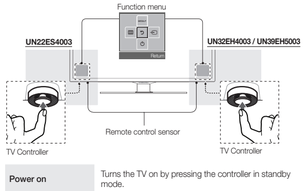
- HDMI
- HDMI-DVI
- Component
- Composite (AV)
- Coaxial (RF)

✎ Check the cable before plug-in

| | Cable | Ports |
|---|---|---|
| HDMI | | |
| USB | | |

Do not plug cable upside down. Be sure to check before plug-in.

## TV Controller (Panel Key)




| | |
|---|---|
| Power on | Turns the TV on by pressing the controller in standby mode. |
| Adjusting the volume | Adjusts the volume by moving the controller from side to side when the power is on. |
| Selecting a channel | Selects a channel by moving the controller up and down when the power is on. |
| Using the function menu | Press the controller when the power is on, then the function menu screen appears. If you press it again, the function menu screen disappears. |
| Selecting the Media Play | Selects the **MEDIA.P** by moving the controller in the function menu screen. The **Media Play** main screen appears. |
| Selecting the MENU (▥) | Selects the **MENU**(▥) by moving the controller in the function menu screen. The OSD(On Screen Display) of your TV's feature appears. |
| Selecting the Source List (⇥) | Selects the **Source List**(⇥) by moving the controller in the function menu screen. The **Source List** screen appears. |
| Power Off (⏻) | Selects the **Power Off** (⏻) to turn the TV off by moving the controller in the function menu screen. |

✎ Exits the menu when pressing the controller more than 1 second.

✎ When selecting the function by moving the controller to the up/down/left/right directions, be sure not to press the controller. If you press it first, you cannot operate it to move the up/down/left/right directions.

## Plug & Play (Initial Setup)

When you turn the TV on for the first time, a sequence of on-screen prompts will assist in configuring basic settings. Press the POWER button. **Plug & Play** is available only when the Input source is set to TV.

✎ Connecting the power cord and antenna. (refer to 'Connections')

### Selecting a language

Select the desired OSD (On Screen Display) language.

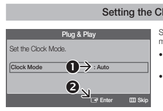
### Selecting a Home Use mode

- Select the **Home Use** mode. **Store Demo** mode is for retail environments.
- When pressing TV controller, the function menu screen appears. Select the **MENU**(▥) and press it more than 5 seconds using the controller. The **Store Demo** mode is set. Cancel the **Store Demo** by selecting **Source List**(⇥) and pressing it more than 5 seconds.

### Selecting an antenna

In **Cable** mode, you can select the correct signal source among **STD**, **HRC**, and **IRC** by pressing the ▲, ▼, ◄ or ► button.

### Setting the Clock Mode




Set the **Clock Mode** automatically or manually.
- If you select the **Auto**, set the DST(Daylight Saving Time).
- On the DST screen, press ENTER(↵), then select whether to turn DST (Daylight Savings Time) on or off. Select the time zone where you live.

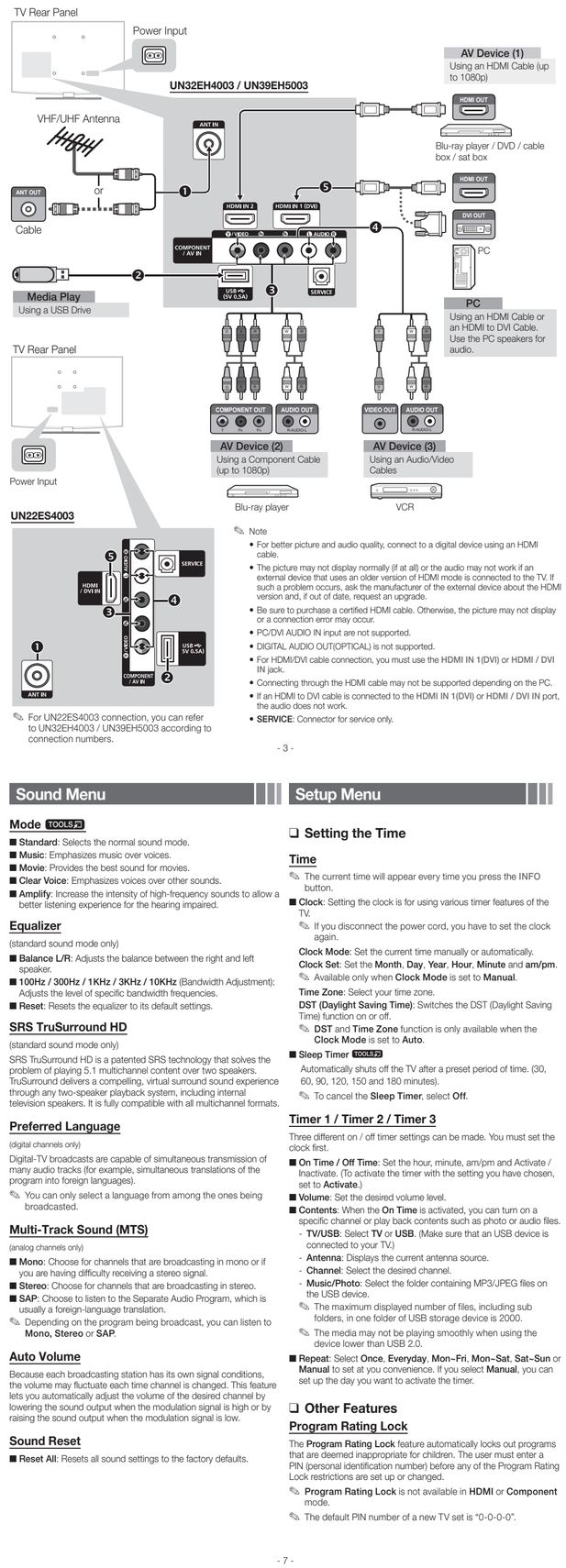
### Viewing the HD Connection Guide

The connection method for the best HD screen quality is displayed.

### Enjoy your TV.

Press the ENTER(↵) button.

# Connections




✎ For UN22ES4003 connection, you can refer to UN32EH4003 / UN39EH5003 according to connection numbers.

✎ Note
- For better picture and audio quality, connect to a digital device using an HDMI cable.
- The picture may not display normally (if at all) or the audio may not work if an external device that uses an older version of HDMI mode is connected to the TV. If such a problem occurs, ask the manufacturer of the external device about the HDMI version and, if out of date, request an upgrade.
- Be sure to purchase a certified HDMI cable. Otherwise, the picture may not display or a connection error may occur.
- PC/DVI AUDIO IN input are not supported.
- DIGITAL AUDIO OUT(OPTICAL) is not supported.
- For HDMI/DVI cable connection, you must use the HDMI IN 1(DVI) or HDMI / DVI IN jack.
- Connecting through the HDMI cable may not be supported depending on the PC.
- If an HDMI to DVI cable is connected to the HDMI IN 1(DVI) or HDMI / DVI IN port, the audio does not work.
- **SERVICE**: Connector for service only.



# Changing the Input Source

## Source List

Use to select TV or an external input source such as a DVD player / Blu-ray player / cable box / STB satellite receiver.

1. Press the SOURCE button.
2. Select a desired external input source.

**UN32EH4003 / UN39EH5003**

■ **TV / AV / Component / HDMI1/DVI / HDMI2**

**UN22ES4003**

■ **TV / AV / Component / HDMI/DVI**

✎ You can only choose external devices that are connected to the TV. In the **Source List**, connected inputs will be highlighted.

## How to use Edit Name

Edit Name lets you associate a device name to an input source. To access **Edit Name**, press the TOOLS button in **Source List**. The following selections appear under **Edit Name**:

■ **VCR / DVD / Cable STB / Satellite STB / PVR STB / AV Receiver / Game / Camcorder / PC / DVI PC / DVI / TV / IPTV / Blu-ray / HD DVD / DMA**: Name the device connected to the input jacks to make your input source selection easier.

✎ When connecting a PC to the HDMI IN 1(DVI) or HDMI / DVI IN port with HDMI cable, you should set the TV to **PC** mode under **Edit Name**.

✎ When connecting a PC to the HDMI IN 1(DVI) or HDMI / DVI IN port with HDMI to DVI cable, you should set the TV to **DVI PC** mode under **Edit Name**.

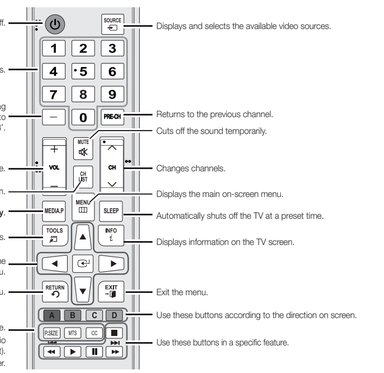
✎ When connecting an AV devices to the HDMI IN 1(DVI) or HDMI / DVI IN port with HDMI to DVI cable, you should set the TV to **DVI** mode under **Edit Name**.

## Information

You can see detailed information about the connected external device.

# Remote Control

✎ This remote control has Braille points on the Power, Channel, and Volume buttons and can be used by visually impaired persons.




## Installing batteries (Battery size: AAA)



✎ **NOTE**
- Use the remote control within 23 feet from TV.
- Bright light may affect the performance of the remote control. Avoid use when nearby fluorescent lights or neon signs.
- The Color and shape may vary depending on the model.

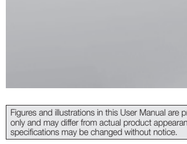


# Channel Menu

## ❑ Seeing Channels

### Channel List

Add, delete or set Favorite channels and use the program guide for digital broadcasts. Select a channel in the **All Channels, Added Channels**, **Favorite** or **Programmed** screen by pressing the ▲ / ▼ buttons, and pressing the ENTER(↵) button. Then you can watch the selected channel.




■ **All Channels**: Shows all currently available channels.

■ **Added Channels**: Shows all added channels.

■ **Favorite**: Shows all favorite channels.

■ **Programmed**: Shows all currently reserved programs.

✎ Using the remote control buttons with the **Channel List**
- Green (**Zoom**): Enlarges or shrinks a channel number.
- Yellow (**Select**): Selects multiple channel lists. Select desired channels and press the Yellow button to set all the selected channels at the same time. The ✓ mark appears to the left of the selected channels.
- (**Tools**): Displays the **Channel List** option menu. (The Options menus may differ depending on the situation.)

### Channel Status Display icons

| Icons | Operations |
|---|---|
| ✓ | A channel selected. |
| ♥ | A channel set as a favorite. |
| ⏲ | A reserved program. |
| ⏍ | A program currently being broadcast. |

## ❑ Memorizing channels

### Antenna (Air / Cable) TOOLS

Before your television can begin memorizing the available channels, you must specify the type of signal source that is connected to the TV (i.e. an Air or a Cable system).

### Auto Program

✎ When selecting the Cable TV system: Selects the cable system. **STD, HRC** and **IRC** identify various types of cable TV systems. Contact your local cable company to identify the type of cable system that exists in your particular area. At this point, the signal source has been selected.

✎ After all the available channels are stored, it starts to remove scrambled channels. The **Auto program** menu then reappears.

✎ Press the ENTER(↵) button to stop the channel store during **Auto Program**.

How to Stop Auto Programming

1. Press the ENTER(↵) button.
2. A message will ask **Stop Auto Program?** Select **Yes** by pressing the ◄ or ► button.
3. Press the ENTER(↵) button.

## ❑ Other Features

### Clear Scrambled Channel

This function filters out scrambled channels after **Auto Program** is completed. This process may take up to 20~30 minutes.

✎ Press the ENTER(↵) button to stop the **Clear Scrambled Channel**.

✎ This function is only available in **Cable** mode.

### Channel List

Channel List Option Menu TOOLS

Set each channel using the **Channel List** menu options. Option menu items may differ depending on the channel status.

■ **Add / Delete**: Delete or add a channel to display the channels you want.

✎ All deleted channels will be shown on the **All Channels** menu.

✎ A gray-colored channel indicates the channel has been deleted.

✎ The **Add** menu only appears for deleted channels.

✎ Delete a channel from the **Added Channels** or **Favorite** menu in the same manner.

■ **Add to Favorite / Delete from Favorite** TOOLS: Set channels you watch frequently as Favorites.

■ **Timer Viewing**: You can set a desired channel to be displayed automatically at the set time; even when you are watching another channel. Set the current time first to use this function.

✎ Only memorized channels can be reserved.

✎ Reserved programs will be displayed in the **Programmed** menu.

✎ When a digital channel is selected, press the ► (**Next Program**) button to view the digital program. If you select the ENTER(↵)(**Schedule**) button on the next program, you can set **Timer Viewing** directly.

■ **Channel Name Edit** (analog channels only): Assign your own channel name.

■ **Select All**: Select all the channels in the channel list.

■ **Deselect All**: Deselect all the selected channels.

✎ You can only select **Deselect All** when one or more channels are selected.

■ **Auto Program**: Scans for a channel automatically and stores in the TV.

**Programmed**

(in **Channel List**)

You can view, modify or delete a show you have reserved to watch.

■ **Change Info**: Change a show you have reserved to watch.

■ **Cancel Schedules**: Cancel a show you have reserved to watch.

■ **Information**: Display a show you have reserved to watch. (You can also change the reservation Information.)

■ **Select All / Deselect All**: You can select or deselect all channels in the channel list.



### Channel Mode

Change the channel mode directly between **Added Channels** and **Favorite Channels**.

✎ The **Favorite Channels** is enabled only when you set **Add to Favorite**.

### Fine Tune

(analog channels only)

If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.

✎ Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.

✎ To reset the fine-tuning, select **Reset**.

# Picture Menu

## Mode TOOLS

Select your preferred picture type.

✎ When connecting a PC, you can only select **Entertain** and **Standard**.

■ **Dynamic**: Suitable for a bright room.

■ **Standard**: Suitable for a normal environment.

■ **Movie**: Suitable for watching movies in a dark room.

■ **Entertain**: Suitable for watching movies and games.

✎ Only available when connecting a PC.

## Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

Your television has several setting options for picture quality control.

✎ When connecting a PC, you can only make changes to **Backlight, Contrast, Brightness** and **Sharpness**

## Advanced Settings

(available in **Standard / Movie** mode)

Compared to previous models, new Samsung TVs have a more precise picture.

✎ When connecting a PC, you can only make changes to **Gamma** and **White Balance**.

■ **Color Space (Auto / Native)**: Adjusts the range of colors available to create the image.

■ **White Balance**: Adjusts the color temperature for a more natural picture.

**R-Offset / G-Offset / B-Offset**: Adjusts each color's (red, green, blue) darkness.

**R-Gain / G-Gain / B-Gain**: Adjusts each color's (red, green, blue) brightness.

**Reset**: Resets the **White Balance** to it's default settings.

■ **Gamma**: Adjusts the primary color intensity.

■ **Dynamic Contrast (Off / Low / Medium / High)**: Adjusts the screen contrast.

■ **Black Tone (Off / Dark / Darker / Darkest)**: Select the black level to adjust the screen depth.

■ **Flesh Tone**: Emphasize pink "flesh tone".

■ **Motion Lighting (Off / On)**: Reduce power consumption by brightness control adapted motion.

✎ Available in **Standard** mode only.

## Picture Options

✎ When connecting a PC, you can only make changes to the **Color Tone**, **Size** and **HDMI Black Level**.

■ **Color Tone (Cool / Standard / Warm1 / Warm2)**

✎ **Warm1** or **Warm2** will be deactivated when the picture mode is **Dynamic**.

■ **Size**: Your cable box/satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use 16:9 mode most of the time.

**16:9**: Sets the picture to 16:9 wide mode.

**Zoom1**: Use for moderate magnification.

**Zoom2**: Use for a stronger magnification.

**Wide Fit**: Enlarges the aspect ratio of the picture to fit the entire screen.

**4:3**: Sets the picture to basic (4:3) mode.

✎ Do not watch in 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which are not covered by the warranty.

**Screen Fit** (DTV): Displays the full image without any cut-off when HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) signals are inputted.

✎ HD (High Definition): 16:9 - 1080i/1080p (1920x1080), 720p (1280x720)

✎ Settings can be adjusted and stored for each external device you have connected to an input on the TV.

✎ Picture Sizes available by Input Source:

| Input Source | Picture Size |
|---|---|
| ATV, AV, Component (480i, 480p) | **16:9, Zoom1, Zoom2, 4:3** |
| DTV(1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p) | **16:9, Wide Fit, 4:3, Screen Fit** |

■ **Digital Noise Filter (Off / Low / Medium / High / Auto)**: If the broadcast signal received by your TV is weak, you can activate the **Digital Noise Filter** feature to reduce any static and ghosting that may appear on the screen.

✎ When the signal is weak, try other options until the best picture is displayed.

■ **HDMI Black Level (Normal / Low)**: Selects the black level on the screen to adjust the screen depth.

✎ Available only in **HDMI** mode (RGB signals).

■ **Film Mode (Off / Auto)**: Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.

✎ Available in ATV, DTV(interlace), AV, COMPONENT (480i / 1080i) and HDMI (480i / 1080i).

■ **LED Motion Plus (Off / On)**: Removes drag from fast scenes with a lot of movement to provide a clear picture.

## Picture Reset

Resets your current picture mode to its default settings.

■ **Reset Picture Mode**: Returns all picture values in the currently selected mode to the default settings.



# Sound Menu

## Mode TOOLS

■ **Standard**: Selects the normal sound mode.

■ **Music**: Emphasizes music over voices.

■ **Movie**: Provides the best sound for movies.

■ **Clear Voice**: Emphasizes voices over other sounds.

■ **Amplify**: Increase the intensity of high-frequency sounds to allow a better listening experience for the hearing impaired.

## Equalizer

(standard sound mode only)

■ **Balance L/R**: Adjusts the balance between the right and left speaker.

■ **100Hz / 300Hz / 1KHz / 3KHz / 10KHz** (Bandwidth Adjustment): Adjusts the level of specific bandwidth frequencies.

■ **Reset**: Resets the equalizer to its default settings.

## SRS TruSurround HD

(standard sound mode only)

SRS TruSurround HD is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

## Preferred Language

(digital channels only)

Digital-TV broadcasts are capable of simultaneous transmission of many audio tracks (for example, simultaneous translations of the program into foreign languages).

✎ You can only select a language from among the ones being broadcasted.

## Multi-Track Sound (MTS)

(analog channels only)

■ **Mono**: Choose for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.

■ **Stereo**: Choose for channels that are broadcasting in stereo.

■ **SAP**: Choose to listen to the Separate Audio Program, which is usually a foreign-language translation.

✎ Depending on the program being broadcast, you can listen to **Mono, Stereo** or **SAP**.

## Auto Volume

Because each broadcasting station has its own signal conditions, the volume may fluctuate each time channel is changed. This feature lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

## Sound Reset

■ **Reset All**: Resets all sound settings to the factory defaults.



# Setup Menu

## ❑ Setting the Time

### Time

✎ The current time will appear every time you press the INFO button.

■ **Clock**: Setting the clock is for using various timer features of the TV.

✎ If you disconnect the power cord, you have to set the clock again.

**Clock Mode**: Set the current time manually or automatically.

**Clock Set**: Set the **Month**, **Day**, **Year**, **Hour**, **Minute** and **am/pm**.

✎ Available only when **Clock Mode** is set to **Manual**.

**Time Zone**: Select your time zone.

**DST (Daylight Saving Time)**: Switches the DST (Daylight Saving Time) function on or off.

✎ **DST** and **Time Zone** function is only available when the **Clock Mode** is set to **Auto**.

■ **Sleep Timer** TOOLS

Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

✎ To cancel the **Sleep Timer**, select **Off**.

### Timer 1 / Timer 2 / Timer 3

Three different on / off timer settings can be made. You must set the clock first.

■ **On Time / Off Time**: Set the hour, minute, am/pm and Activate / Inactivate. (To activate the timer with the setting you have chosen, set to **Activate**.)

■ **Volume**: Set the desired volume level.

■ **Contents**: When the **On Time** is activated, you can turn on a specific channel or play back contents such as photo or audio files.
- **TV/USB**: Select **TV** or **USB**. (Make sure that an USB device is connected to your TV.)
- **Antenna**: Displays the current antenna source.
- **Channel**: Select the desired channel.
- **Music/Photo**: Select the folder containing MP3/JPEG files on the USB device.

✎ The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.

✎ The media may not be playing smoothly when using the device lower than USB 2.0.

■ **Repeat**: Select **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual** to set at you convenience. If you select **Manual**, you can set up the day you want to activate the timer.

## ❑ Other Features

### Program Rating Lock

The **Program Rating Lock** feature automatically locks out programs that are deemed inappropriate for children. The user must enter a PIN (personal identification number) before any of the Program Rating Lock restrictions are set up or changed.

✎ **Program Rating Lock** is not available in **HDMI** or **Component** mode.

✎ The default PIN number of a new TV set is "0-0-0-0".



■ **Program Rating Lock**: You can block rated TV Programs.

■ **TV Parental Guidelines**: You can block TV programs depending on their rating. This function allows you to control what your children are watching.

■ **MPAA Rating**: You can block movies depending on their MPAA rating. The Motion Picture Association of America(MPAA) has implemented a rating system that provides parents or guardians with advanced information on which films are appropriate for children.

■ **Canadian English**: You can block TV programs depending on their Anglophone Canadian.

■ **Canadian French**: You can block TV programs depending on their French Canadian rating.

■ **Downloadable U.S. Rating**: Parental restriction information can be used while watching DTV channels.

■ **Change PIN**: The Change PIN screen will appear. Choose any 4 digits for your PIN and enter it in **Enter New PIN**. Re-enter the same 4 digits in **Confirm New PIN**. When the Change PIN screen disappears, press the OK button. The TV has memorized your new PIN.

✎ If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to "0-0-0-0" : POWER (off) → MUTE → 8 → 2 → 4 → POWER (on)

## Language

Set the menu language.

✎ Choose between **English**, **Español** and **Français**.

## Game Mode

When connecting to a game console such as PlayStation™ or Xbox™, you can enjoy a more realistic gaming experience by selecting the game menu.

✎ Precautions and limitations for game mode
- To disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
- If you display the TV menu in **Game Mode**, the screen shakes slightly.

✎ **Game Mode** is not available when the input source is set to **TV**.

✎ After connecting the game console, set **Game Mode** to **On**. Unfortunately, you may notice reduced picture quality.

## Caption

(On-Screen Text Messages)

■ **Caption**: You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.

✎ The **Caption** feature does not work in **Component** or **HDMI** mode.

■ **Caption Mode**: You can select the desired caption mode.

**Default / CC1~CC4 / Text1~Text4**: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

**Default / Service1~Service6 / CC1~CC4 / Text1~Text4**: (digital channels only) The Digital Captions function works with digital channels.

✎ **Service1~6** may not be available in digital caption mode depending on the broadcast.

■ **Digital Caption Options**: (digital channels only)

**Size**: Options include Default, Small, Standard and Large. The default is Standard.

**Font Style**: Options include Default and Styles 0 to 7. The default is Style 0.

**Foreground Color**: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan. You can change the color of the letter. The default is White.

**Background Color**: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan. You can change the background color of the caption. The default is Black.

**Foreground Opacity**: This adjusts the opacity of text. Options include Default, Transparent, Translucent, Solid and Flashing.

**Background Opacity**: This adjusts the opacity of the caption background. Options include Default, Transparent, Translucent, Solid and Flashing.

**Return to Default**: This option sets each Size, Font Style, Foreground Color, Background Color, Foreground Opacity and Background Opacity to its default.

✎ **Digital Caption Options** are available only when **Default** and **Service1 ~ Service6** can be selected in **Caption Mode**.

✎ The Foreground and Background cannot be set to have the same color.

## Melody

Set so that a melody plays when the TV is turned on or off.

✎ The **Melody** does not play.
- When no sound is output from the TV because the MUTE button has been pressed.
- When no sound is output from the TV because the volume has been reduced to minimum with the VOL – button.
- When the TV is turned off by **Sleep Timer** function.

## Auto Protection Time

■ **Auto Protection Time (Off / 2 hours / 4 hours / 8 hours / 10 hours)**: If the screen remains idle with a still image for a certain period of time defined by the user, the screen saver is activated to prevent the formation of ghost images on the screen.

## Eco Solution

■ **Energy Saving (Off / Low / Medium / High / Picture Off)** : This adjust the brightness of the TV in order to reduce power consumption. If you select **Picture Off**, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.

■ **No Signal Power Off (Off / 15 min. / 30 min. / 60 min.)**: Sets how quickly the TV switches to standby mode, if no picture is being received.

✎ Disabled when the PC is in power saving mode.

■ **Auto Power Off (Off / On)**: The TV will be automatically turned off when no user operation is received for 4 hours.

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# Support Menu

## Self Diagnosis

- **Picture Test**: Use to check for picture problems. If the problem continues to occur, check the color pattern.
- **Sound Test**: Use the built-in melody sound to check for sound problems.
- **Signal Strength**: (digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.
- **Reset**: Reset all settings to the factory defaults.

✎ The PIN input screen appears before the setup screen.

✎ Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

## Software Upgrade

**Software Upgrade** can be performed by downloading the latest firmware from samsung.com to a USB memory device.

## HD Connection Guide

Refer to this information when connecting external devices to the TV.

## Contact Samsung

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers and how to download products and software.

# Media Play

Enjoy photos, music and/or movie files saved on a USB Mass Storage Class (MSC) device.

## ❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music and/or movie files to the **USB** jack on the side of the TV.
3. When USB is connected to the TV, you can select **Media Play (USB)** in **Application** menu.

## ❑ Using the Media Play Menu

1. Press the MENU button. Press the ▲ or ▼ button to select **Application**, then press the ENTER↵ button.
2. Press the ▲ or ▼ button to select **Media Play (USB)**, then press the ENTER↵ button.
3. Press the ◄ or ► button to select an icon (**Videos, Music, Photos, Settings**), then press the ENTER↵ button.

✎ It might not work properly with unlicensed multimedia files.

✎ Need-to-Know List before using **Media Play (USB)**

- The file system supports FAT16, FAT32 and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- **Media Play** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Flash Card Readers. Devices should be connected directly to the TV's USB port. USB HDD is not supported.
- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- A USB device that requires high power (more than 0.5A) may not be supported.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15,360 x 8,704 pixels.
- If a file is corrupted or the TV does not support the file type, the "Not Supported File Format" message appears.
- The TV cannot play MP3 files with DRM that have been downloaded from a for-pay site. Digital Rights Management (DRM) is a technology that supports the creation, distribution, and management of digital content in an integrated and comprehensive way, including protecting the rights and interests of content providers, preventing illegal copying of contents, and managing billings and settlements.
- PTP device is not supported.
- If the device is over-powered while connecting or using a USB device, the device may not be recognized or may malfunction.
- If the TV has no input during the time set in **Auto Protection Time**, the Screensaver will run.
- The power-saving mode of some external hard disk drives may be released automatically when your connect them to the TV.
- If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted, or a file in the list is not played, connect the USB device to a PC, format the device, and check the connection.
- If a file you deleted from the PC is still found when you run **Media Play**, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.
- **Photos** only supports sequential jpeg format.
- The scene search and thumbnail functions are not supported in the **Videos**.
- If the number of files and folders saved on a USB storage device is approximately over 4000, the files and folders may not appear and some folders may not be opened.
- The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.
- The media may not be playing smoothly when using the device lower than USB 2.0.

## Videos

1. Press the ◄ or ► button to select **Videos**, then press the ENTER↵ button in the **Media Play** menu.
2. Press the ◄/►/▲/▼ button to select the desired video in the file list.
3. Press the ENTER↵ button or ▶ (Play) button.
   - The selected file is displayed on the top with its playing time.
   - If video time information is unknown, playing time and the progress bar are not displayed.
   - During video playback, you can search using the ◄ and ► button.

✎ In this mode, you can play movie clips contained in a game, but you cannot play the game itself.

• Supported Subtitle Formats

- External

| Name | File extension |
|---|---|
| MPEG-4 timed text | .ttxt |
| SAMI | .smi |
| SubRip | .srt |
| SubViewer | .sub |
| Micro DVD | .sub or .txt |
| SubStation Alpha | .ssa |
| Advanced SubStation Alpha | .ass |

- Internal

| Name | Container | Format |
|---|---|---|
| Xsub | AVI | Picture Format |
| SubStation Alpha | MKV | Text Format |
| Advanced SubStation Alpha | MKV | Text Format |
| SubRip | MKV | Text Format |
| MPEG-4 Timed text | MP4 | Text Format |

• Supported Video Formats

| File Extension | Container | Video Codec | Resolution | Frame rate(fps) | Bit rate(Mbps) | Audio Codec |
|---|---|---|---|---|---|---|
| *.mp4 | MP4 | DivX 3.11/4.x/5.1/6.0 | 1920x1080 | 6~30 | 30Mbps | MP3 / AC3 / LPCM / ADPCM |
| | | H264 | 1920x1080 | 6~30 | 30Mbps | |
| | | AVC | 1920x1080 | 6~30 | 30Mbps | |
| | | MJPEG | 640x480 | 6~30 | 10Mbps | |
| *.avi *.mkv | AVI, MKV | DivX 3.11/4.x/5.1/6.0 | 1920x1080 | 6~30 | 30Mbps | MP3 / AC3 / LPCM / ADPCM / DTS Core |
| | | MPEG4 SP / ASP | 1920x1080 | 6~30 | 30Mbps | |
| | | H264 | 1920x1080 | 6~30 | 30Mbps | |
| | | MJPEG | 640x480 | 6~30 | 10Mbps | |
| *.asf *.wmv | ASF | DivX 3.11 / 4.x /5.1 / 6.0 | 1920x1080 | 6~30 | 30Mbps | MP3 / AC3 / LPCM / ADPCM / WMA / WMA Pro |
| | | MPEG4 SP / ASP | 1920x1080 | 6~30 | 30Mbps | |
| | | H.264 | 1920x1080 | 6~30 | 30Mbps | |
| *.ts *.trp *.tp *.m2ts | TS | MPEG2 | 1920x1080 | 6~30 | 30Mbps | AC3 / AAC / MP3 / DD+ / HE-AAC |
| | | H. 264 BP / MP / HP | 1920x1080 | 6~30 | 30Mbps | |
| *.dat *.mpg *.mpeg *.vob | PS | MPEG1 | 1920x1080 | 24/25/30 | 30Mbps | AC3 / MPEG / LPCM / AAC |
| | | MPEG2 | 1920x1080 | 24/25/30 | 30Mbps | |
| | | H. 264 BP / MP / HP | 1920x1080 | 6~30 | 30Mbps | |
| *.3gp | 3GPP | MPEG4 SP / ASP | 1920x1080 | 6~30 | 30Mbps | MP3 |
| | | H.264 | 1920x1080 | 6~30 | 30Mbps | |
| *.flv *.swf | flash formats | H.264 | 1920x1080 | 6~30 | 30Mbps | MP3 |
| | | Sonnson H.263 | 1920x1080 | 6~30 | 30Mbps | |

## Other Restrictions

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bit rate/ frame rate above the compatible Frame/sec listed in the table above.
- If the Index Table is in error, the Seek (Jump) function is not supported.
- The menu may take longer to appear if the video's bit rate exceeds 10Mbps.
- Video content can not be played, if there are many contents in one file.

**Video Decoder**

Supports up to H.264, Level 4.1

H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.

MPEG4 SP, ASP :

– Below 1280 x 720: 60 frame max

– Above 1280 x 720: 30 frame max

H.263 is not supported.

GMC is not supported.

**Audio Decoder**

Supports up to WMA7, 8, 9 STD, 9 PRO, 10 PRO

WMA 9 PRO and WMA 10 PRO support 5.1 channel. (LBR mode of WMA Pro is not supported)

WMA Lossless is not supported.

## Music

1. Press the ◄ or ► button to select **Music**, then press the ENTER↵ button in the **Media Play** menu.
2. Press the ◄/►/▲/▼ button to select the desired Music in the file list.
3. Press the ENTER↵ button or ▶ (Play) button.

✎ During music playback, you can search using the ◄ and ► button.

✎ ◀◀ (REW) and ▶▶ (FF) buttons do not function during play.

✎ Only displays the files with MP3 and PCM file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

✎ If the sound is abnormal when playing MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

## Photos

1. Press the ◄ or ► button to select **Photos**, then press the ENTER↵ button in the **Media Play** menu.
2. Press the ◄/►/▲/▼ button to select the desired photo in the file list.
3. Press the ENTER↵ button or ▶ (Play) button.

✎ NOTE

- While a photo list is displayed, press the ▶ (Play) / ENTER↵ button on the remote control to start the slide show.
- All files in the file list section will be displayed in the slide show.
- During the slide show, files are displayed in order.
- During the slide show, you can adjust the slide show speed using (◀◀) (REW) or (▶▶) (FF) button.
- You can move to other file using ◄ or ► button.

• Supported Photo Formats

| Image | Photo | Resolution |
|---|---|---|
| JPEG | Base-line | 15360 x 8704 |
| | Progressive | 1024 x 768 |

## Other Restrictions

- CMYK, YCCK Color space JPEG are not supported.

## Playing Multiple Files

■ **Playing selected video/music/photo files**

1. Press the Yellow button in the file list to select the desired file.
2. Repeat the above operation to select multiple files.

✎ **NOTE**

- The ✓ mark appears to the left of the selected files.
- To cancel a selection, press the Yellow button again.
- To deselect all selected files, press the TOOLS button and select **Deselect All**.

3. Press the TOOLS button, and then select **Play Selected Contents**.

■ **Playing the video/music/photo file group**

1. While a file list is displayed, move to any file in desired group.
2. Press the TOOLS button, and then select **Play Folder**.

## Media Play - Additional Functions

■ **Videos/Music/Photos Play Option menus**

When playing a file, press the TOOLS button.

| Category | Operation | Videos | Music | Photos |
|---|---|---|---|---|
| Title | You can move the other file directly. | ✓ | | |
| Repeat Mode | You can play movie and music files repeatedly. | ✓ | ✓ | |
| Picture Size | You can adjust the picture size to your preference. | ✓ | | |
| Picture Mode | You can adjust the picture setting. | ✓ | | ✓ |
| Sound Mode | You can adjust the sound setting. | ✓ | ✓ | ✓ |
| Subtile Setting | You can play the video with Subtitles. This function only works if the subtitles are the same file name as the video. | ✓ | | |
| Audio Language | You can change the audio language if the video has more than one language. | ✓ | | |
| Stop Slide Show / Start Slide Show | You can start or stop a Slide Show. | | | ✓ |
| Slide Show Speed | You can select the slide show speed during the slide show. | | | ✓ |
| Background Music | You can set and select background music when watching a Slide Show. | | | ✓ |
| Zoom | You can zoom into images in full screen mode. | | | ✓ |
| Rotate | You can rotate images in full screen mode. | | | ✓ |
| Information | You can see detailed information about the played file. | ✓ | ✓ | ✓ |

## Settings

**Using the Setup Menu**

■ **Information**: Select to view information on the connected device.

# Other Information

## Installing the Wall Mount Kit

The wall mount kit (sold separately) allows you to mount the TV on the wall.

For detailed information on installing the wall mount, see the instructions provided with the wall mount items. Contact a technician for assistance when installing the wall mount bracket. Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

**Wall Mount Kit Specifications (VESA)**

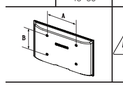
✎ The wall mount kit is not supplied, but sold separately.

Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest dealer. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury.

✎ **NOTE**

- Standard dimensions for wall mount kits are shown in the table below.
- When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not use screws that are longer than the standard dimension or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the TV set.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the TV at more than a 15 degree tilt.
- Always have two people mount the TV on a wall.

| Product Family | TV size in inches | VESA screw hole specs (A * B) in millimeters | Standard Screw | Quantity |
|---|---|---|---|---|
| LED-TV | 19–22 | 75 X 75 | M4 | 4 |
| | 26 | 100 X 100 | | |
| | 32–40 | 200 X 200 | M6 | |
| | 46–60 | 400 X 400 | M8 | |




Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.

## Securing the TV to the Wall

**Caution**: Pulling, pushing, or climbing onto the TV may cause the TV to fall. In particular, ensure that your children do not hang over or destabilize the TV; doing so may cause the TV to tip over, resulting in serious injuries or death. Follow all safety precautions provided on the included Safety Flyer. For added stability, install the anti-fall device for safety purposes, as follows.

**To prevent the TV from falling**

✎ Since the necessary clamps, screws, and string are not supplied, please purchase these additionally.

1. Drive the screws into the clamps and firmly fasten them onto the wall. Make sure the screws are firmly fixed into the wall.
2. Remove the screws from the back center of the TV, put the screws into the clamps, and then fasten the screws onto the TV again.
3. Connect the clamps fixed onto the TV and the clamps fixed onto the wall with a strong cable and then tie the string tightly.

✎ Verify all connections are properly secured. Periodically check the connections for any sign of fatigue or failure. If you have any doubt about the security of your connections, contact a professional installer.

✎ Install the TV close to the wall so that it does not fall.

✎ It is safe to connect the string so that the clamps fixed on the wall are equal to or lower than the clamps fixed on the TV. Untie the string before moving the TV.

## Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. Refer to the manual provided with the Kensington Lock for additional information on proper use.

✎ Please find a "🔒" icon on the rear of the TV. The Kensington slot is beside the "🔒" icon.

✎ The position and color may differ depending on the model.

## Display Modes (HDMI/DVI Input)

Optimal resolution

4003 series:1366 x 768@60Hz / 5003 series: 1920 x 1080@60Hz

| Mode | Resolution | Horizontal Frequency (KHz) | Vertical Frequency (Hz) | Pixel Clock Frequency (MHz) | Sync Polarity (H / V) | 1366 x 768 | 1920 x 1080 |
|---|---|---|---|---|---|---|---|
| IBM | 640 x 350 | 31.469 | 70.086 | 25.175 | +/- | ✓ | ✓ |
| | 720 x 400 | 31.469 | 70.087 | 28.322 | -/+ | ✓ | ✓ |
| MAC | 640 x 480 | 35.000 | 66.667 | 30.240 | -/- | ✓ | ✓ |
| | 832 x 624 | 49.726 | 74.551 | 57.284 | -/- | ✓ | ✓ |
| VESA DMT | 1152 x 870 | 68.681 | 75.062 | 100.000 | -/- | | ✓ |
| | 640 x 480 | 31.469 | 59.940 | 25.175 | -/- | ✓ | ✓ |
| | 640 x 480 | 37.861 | 72.809 | 31.500 | -/- | ✓ | ✓ |
| | 640 x 480 | 37.500 | 75.000 | 31.500 | -/- | ✓ | ✓ |
| | 800 x 600 | 37.879 | 60.317 | 40.000 | +/+ | ✓ | ✓ |
| | 800 x 600 | 48.077 | 72.188 | 50.000 | +/+ | ✓ | ✓ |
| | 800 x 600 | 46.875 | 75.000 | 49.500 | +/+ | ✓ | ✓ |
| | 1024 x 768 | 48.363 | 60.004 | 65.000 | -/- | ✓ | ✓ |
| | 1024 x 768 | 56.476 | 70.069 | 75.000 | -/- | ✓ | ✓ |
| | 1024 x 768 | 60.023 | 75.029 | 78.750 | +/+ | ✓ | ✓ |
| | 1152 x 864 | 67.500 | 75.000 | 108.000 | +/+ | | ✓ |
| | 1280 x 720 | 45.000 | 60.000 | 74.250 | +/+ | ✓ | ✓ |
| | 1280 x 800 | 49.702 | 59.810 | 83.500 | -/+ | | ✓ |
| | 1280 x 1024 | 63.981 | 60.020 | 108.000 | +/+ | | ✓ |
| | 1280 x 1024 | 79.976 | 75.025 | 135.000 | +/+ | | ✓ |
| | 1366 x 768 | 47.712 | 59.790 | 85.500 | +/+ | ✓ | ✓ |
| | 1440 x 900 | 55.935 | 59.887 | 106.500 | -/+ | | ✓ |
| | 1600 x 900RB | 60.000 | 60.000 | 108.000 | +/+ | | ✓ |
| | 1680 x 1050 | 65.290 | 59.954 | 146.250 | -/+ | | ✓ |
| | 1920 x 1080 | 67.500 | 60.000 | 148.500 | +/+ | | ✓ |

# Troubleshooting

If the TV seems to have a problem, first review this list of possible problems and solution. If none of these troubleshooting tips apply, visit samsung.com, then click on Support, or call Samsung customer service at 1-800-SAMSUNG.

| Problem | Possible Solution |
|---|---|
| Flickering and Dimming | If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficient features like the Eco Sensor or the Energy Saving feature. If you follow below step with your remote, you can turn these features off or on.<br>• **Energy saving** : **User Menu → Setup → Eco Solution → Energy Saving** |
| Component Connections / Screen Color | If you find that the color on your Samsung television's screen is not correct or black and White, first run a Self Diagnosis on the TV to make sure there are no device issues.<br>• **Self Diagnosis** : **User Menu → Support → Self Diagnosis → Picture Test**<br>• If the test is ok, try making sure ;<br>• Your connections are all consistent. For example, if you've used the AV In jack on your TV, make sure you have used the AV Out jack on your video source.<br>• Try making sure you have connected to the correct jacks. For example, if you use the Component jacks, labeled Pb, Pr, and Y, to connect your TV and video source, make sure you have connected the blue Pb jack on the video source to the blue Pb jack on the TV, the red Pr jack on the source to the red Pr jack on the TV. |
| Screen Brightness | If you find that the colors on your Samsung TV are correct but just a little too dark or bright, there are some settings you should check before calling for a repair.<br>• Backlight, Contrast, Brightness, Sharpness, Color, Tint and so on. Go in to "Picture" on user Menu then try adjusting options mentioned above. |
| Unwanted Powering off | If your Samsung TV appears to turn off by itself, there may be an issue with either your Timer settings or your Eco friendly No Signal Power Off feature.<br>First make sure you Sleep Timer is not accidentally set. The sleep timer allows you the comfort of falling asleep with the TV still on but, turns it off after a certain period of time so as not to waste energy.<br>• **Sleep Timer** : **User Menu → Setup → Time → Sleep Timer**<br>If the Sleep Timer is not activated, you may have engaged the No Signal Power Off or Auto Power Off feature.<br>• **No Signal Power Off** : **User Menu → Setup → Eco Solution → No Signal Power**<br>• **Auto Power Off : User Menu → Setup → Eco Solution → Auto Power Off** |
| Trouble Powering On | **Before Turn on check red light on the right or left bottom of your TV. Press power on button on TV or remote and it will blink about 5 times before turning on.**<br>If you find that you are having trouble powering on your Samsung television, there are a number of things to check before making a call to the service department.<br>• If you happen to be using the TV as a monitor and the stand-by light only blinks for a few seconds when you press the power button, your PC is in sleep mode. To take your PC out of sleep mode, press a key on your keyboard or move the mouse. Then try turning your TV on.<br>If you're sure your power cord, remote control, and PC are functioning properly, you may be having a cable issue. If you have a cable or satellite box, your TV may appear to be off because the cable or satellite box is not outputting a signal. To test the signal output of your cable or satellite box, press the guide or info button on the cable or satellite box remote control. If the screen displays the guide or info data, the problem is caused by the box. |
| Stand Assembly | • If you have any trouble to assemble the stand though you refer to "Install the Stand" mentioned at separate guide. |
| Cannot find channel | • Re-run plug and play. |
| **Poor picture** | First, perform the **Picture Test** and to see if your TV is properly displaying the test image.<br>Go to MENU - **Support - Self Diagnosis - Picture Test**<br>If the test image is properly displayed, the poor picture may be caused by the source or signal. |
| The TV image does not look as good as it did in the store. | • If you have an analog cable/satellite box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality.<br>• Cable/Satellite subscribers: Try HD channels from the channel line up.<br>• Air/Cable Antenna connection: Try HD channels after performing Auto program.<br>✎ Many HD channels are up scaled from SD(Standard Definition) contents.<br>• Adjust the Cable/Set top box video output resolution to 1080i or 720p. |
| The picture is distorted: macroblock error, small block, dots, pixelization. | • Compression of video contents may cause picture distortion, especially on fast moving pictures such as sports and action movies.<br>• A weak signal can cause picture distortion. This is not a TV problem.<br>• Mobile phones used close to the TV (within 3.3ft) may cause noise in the picture on analog and digital channels. |
| Color is wrong or missing. | • If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen. |
| There is poor color or brightness. | • Adjust the Picture options in the TV menu. (go to **Picture Mode / Color / Brightness / Sharpness**)<br>• Adjust **Energy Saving** option in the TV menu. (go to MENU - **Setup** - **Eco Solution** - **Energy Saving** )<br>• Try resetting the picture to view the default picture setting. (go to MENU - **Picture - Picture Reset**) |

| Problem | Possible Solution |
|---|---|
| There is a dotted line on the edge of the screen. | • If the picture size is set to **Screen Fit**, change it to 16:9.<br>• Change cable/satellite box resolution. |
| The picture is black and white. | • If you are using an AV composite input, connect the video cable (yellow) to the Green jack of component input 1 on the TV. |
| When changing channels, the picture freezes or is distorted or delayed. | • If connected to a cable box, please try to reset it. (reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes)<br>• Set output resolution of the cable box to 1080i or 720p. |
| **Sound Problem** | First of all, please perform the **Sound Test** to confirm that your TV audio is properly operating.<br>(go to MENU - **Support - Self Diagnosis - Sound Test**)<br>If the audio is OK, the sound problem may caused by the source or signal. |
| There is no sound or the sound is too low at maximum volume. | • Please check the volume of the device (Cable/Sat Box, DVD, Blu-ray, etc.) connected to your TV. |
| The picture is good but there is no sound. | • If you are using an external device, check the device's audio output option (ex. you may need to change your cable box's audio option to HDMI when you have a HDMI connected to your TV).<br>• Reboot the connected device by reconnecting the device's power cable. |
| The speakers are making an inappropriate noise. | • Check the cable connections. Make sure a video cable is not connected to an audio input.<br>• For Antenna or Cable connections, check the signal information. A weak signal may cause sound distortion.<br>• Perform the **Sound Test** as explained above. |
| **No Picture, No Video** | |
| The TV will not turn on. | • Make sure the AC power cord is securely plugged into the wall outlet and the TV.<br>• Make sure the wall outlet is working.<br>• Try pressing the POWER button on the TV to make sure the problem is not the remote. If the TV turns on, refer to "Remote control does not work" below. |
| The TV turns off automatically. | • Ensure the **Sleep Timer** is set to **Off** in the **Time** menu.<br>• If your PC is connected to the TV, check your PC power settings.<br>• Make sure the AC power cord is plugged in securely to the wall outlet and the TV.<br>• When you are watching TV connected to an antenna or cable connection, the TV will turn off after 10 - 15 minutes if there is no signal. |
| There is no picture/video. | • Check the cable connections. (Remove and reconnect all cables connected to the TV and external devices).<br>• Set your external device's (Cable/Sat Box, DVD, Blu-ray etc) video outputs to match the connections to the TV input. For example, if an external device's output is HDMI, it should be connected to an HDMI input on the TV.<br>• Make sure your connected devices are powered on.<br>• Be sure to select the TV's correct source by pressing the SOURCE button on the remote control.<br>• Reboot the connected device by reconnecting the device's power cable. |
| **Antenna(Air / Cable) Connection** | |
| The TV is not receiving all channels. | • Make sure the coaxial cable is connected securely.<br>• Please try Auto Program to add available channels to the channel list.<br>go to MENU - **Channel - Auto program** then select **Auto** and make sure the correct Cable TV signal type is set in the menu. There are 3 options. (**STD**, **HRC** and **IRC**)<br>• Verify the antenna is positioned correctly. |
| No Caption on digital channels. | • Check the Caption Setup menu. Try changing **Caption Mode Service 1** to **CC1**.<br>• Some channels may not have caption data. |
| The picture is distorted: macroblock, error, small block, dots, pixelization. | • Compression of video contents may cause picture distortion. Especially on fast moving pictures such as sports and action movies.<br>• A weak signal can cause picture distortion. This is not a TV problem. |
| **Others** | |
| Purple/green rolling horizontal bars and buzzing noise from the TV speakers with Component cable connection. | • Remove the left and right audio connections from the set-top-box. If the buzzing stops, this indicates that the set-top-box has a grounding issue. Replace the Component video cables with an HDMI connection. |
| The picture will not display in full screen. | • HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents.<br>• Black bars on the Top & Bottom will be shown on movies that have aspect ratios different from your TV.<br>• Adjust the picture size option on your external device or change the TV to full screen. |
| The remote control does not work. | • Replace the remote control batteries with correct polarity (+/-).<br>• Clean the transmission window located on the top of the remote control.<br>• Try pointing the remote directly at the TV from 5~6 feet away. |
| The cable/set top box remote control does not turn the TV on or off, or adjust the volume. | • Program the Cable/Set top box remote control to operate the TV. Refer to the Cable/Set top box user manual for the SAMSUNG TV code. |
| A "**Mode Not Supported**" message appears. | • Check the supported resolution of the TV and adjust the external device's output resolution accordingly. Refer to resolution settings in this manual. |

| Problem | Possible Solution |
|---|---|
| **Caption** on the TV menu is greyed out. | • You cannot select **Caption** in the TV menu when watching content from a device connected via HDMI or Component.<br>• **Caption** must be activated on the external device. |
| There is a plastic smell from the TV. | • This smell is normal and will dissipate over time. |
| TV **Signal Strength** is unavailable in the **Self Diagnosis** Test menu. | • This function is only available for digital channels from an Antenna / RF/Coax connection. |
| TV is tilted to the right or left side. | • Remove the stand base from the TV and reassemble it. |
| The **Channel** menu is grey out (unavailable). | • The **Channel** menu is only available when you select the TV source. |
| Your settings are lost after 30 minutes or every time the TV is turned off. | • If TV is in the **Store Demo** mode, it will reset audio and picture settings every 30 minutes. Please change from **Store Demo** mode to **Home Use** mode using the **Plug & Play** procedure. Press the SOURCE button to select **TV** mode, go to MENU → **Setup** → **Plug & Play** → ENTER↵. |
| You have intermittent loss of audio or video. | • Check the cable connections and reconnect them.<br>• Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If mounting the TV to the wall, we recommend using cables with 90 degree connectors. |
| You see small particles when you look closely at the edge of the frame of the TV. | • This is part of the product's design and is not a defect. |
| POP (TV's internal banner ad) appears on the screen. | • Select **Home Use** under **Plug & Play** mode. For details, refer to **Plug & Play** (Initial Setup). |

✎ This TFT LED panel uses a panel consisting of sub pixels which require sophisticated technology to produce. However, there may be a few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

✎ Watch these troubleshooting on video at www.samsung.com/spsn.

✎ Some functions and pictures shown in this manual are available on specific models only.

✎ You can keep your TV as optimum condition to upgrade the latest firmware on web site (samsung.com → Support → Downloads) by USB.

## Storage and Maintenance

✎ If you attached some stickers on the TV screen, it remains some debris after removing the sticker. Please clean it to watch TV.

✎ The exterior and screen of the product can get scratched during cleaning. Be sure to wipe the exterior and screen carefully using a soft cloth to prevent scratches.

Do not spray water directly onto the product. Any liquid that goes into the product may cause a failure, fire, or electric shock.

Clean the product with a soft cloth dampened with a small amount of water. Do not use a flammable liquid (e.g. benzene, thinners) or a cleaning agent.

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SRS TheaterSound™ provides the most immersive surround sound experience from the TV's built-in speakers, while maintaining steady volume and delivering rich bass and clear dialog.

DivX Certified® to play DivX® video up to HD 1080p, including premium content.

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# Specifications

| | | | |
|---|---|---|---|
| Environmental Considerations<br>Operating Temperature<br>Operating Humidity<br>Storage Temperature<br>Storage Humidity | 50°F to 104°F (10°C to 40°C)<br>10% to 80%, non-condensing<br>-4°F to 113°F (-20°C to 45°C )<br>5% to 95%, non-condensing | | |
| Model Name | UN22ES4003 | UN32EH4003 | UN39EH5003 |
| Display Resolution | 1366 x 768 | | 1920 x 1080 |
| Screen Size (Diagonal) | 22" Class (21.5" measured diagonally) | 32" Class (31.5" measured diagonally) | 39" Class (38.5" measured diagonally) |
| Sound Output | 3W x 2 | 5W x 2 | 10W x 2 |
| Dimensions (W x H x D)<br>Body | 20.4 X 12.5 X 1.9 inches<br>(518.9 X 319.7 X 49.0 (mm)) | 29.0 X 17.4 X 3.6 inches<br>(738.4 X 444.0 X 93.2 (mm)) | 35.2 X 20.9 X 3.6 inches<br>(895.9 X 532.5 X 93.2 (mm)) |
| With stand | 20.4 X 13.9 X 4.8 inches<br>(518.9 X 354.1 X 123.4 (mm)) | 29.0 X 19.5 X 7.5 inches<br>(738.4 X 497.7 X 191.7 (mm)) | 35.2 X 23.2 X 8.9 inches<br>(895.9 X 589.3 X 227.6 (mm)) |
| Weight<br>Without Stand<br>With Stand | 7.0 lbs (3.2 kg)<br>7.2 lbs (3.3 kg) | 11.9 lbs (5.4 kg)<br>13.2 lbs (6.0 kg) | 17.1 lbs (7.8 kg)<br>21.6 lbs (9.8 kg) |

✎ Design and specifications are subject to change without prior notice.

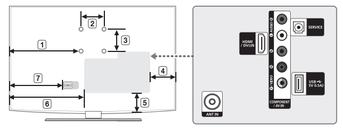
✎ This device is a Class B digital apparatus.

✎ For information about the power required and more about power consumption, refer to the label attached to the product.

✎ Typical power consumption is measured according to Energy Star Program requirements for televisions.

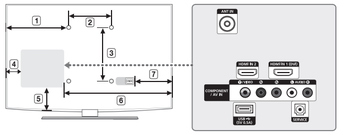
■ **JACK PANEL DETAIL / REAR VIEW**

**UN22ES4003**




| UN22ES4003 | (Unit: inches) |
|---|---|
| 1 | 8.7 |
| 2 | 2.9 |
| 3 | 2.9 |
| 4 | 4.3 |
| 5 | 2.2 |
| 6 | 9.1 |
| 7 | 6.4 |

**UN32EH4003 / UN39EH5003**




| UN32EH4003 | (Unit: inches) |
|---|---|
| 1 | 10.5 |
| 2 | 7.8 |
| 3 | 7.8 |
| 4 | 3.4 |
| 5 | 3.9 |
| 6 | 19.0 |
| 7 | 7.7 |

| UN39EH5003 | (Unit: inches) |
|---|---|
| 1 | 13.6 |
| 2 | 7.8 |
| 3 | 7.8 |
| 4 | 5.2 |
| 5 | 5.6 |
| 6 | 23.5 |
| 7 | 10.7 |

NOTE: All drawings are not necessarily to scale. Some dimensions are subject to change without